

## Claims

What is claimed is:

1. Storage and retrieval unit comprising:
  - a) a supporting carriage which is movable along a rack aisle on at least one substantially horizontal supporting rail by means of a drive;
  - b) a lifting platform carried along by the supporting carriage and intended for receiving storage items;
  - c) a lifting apparatus by means of which the lifting platform is movable in the vertical direction relative to the supporting carriage and comprises at least two traction means, on which the lifting platform is suspended from the supporting carriage;
  - d) a stabilising device which prevents lateral deflection of the lifting platform relative to the supporting carriage,
  - e) the stabilising device comprises:
    - ea) a stabilising carriage which is movable by means of its own drive along at least one guide rail running at a vertical distance from and parallel to the supporting rail;
    - eb) a substantially rigid connecting structure having a horizontal extension component and articulated both on the lifting platform and on the stabilising carriage;

ec) a control system which, in the event of a change in the vertical position of the lifting platform, changes the horizontal distance between the lifting platform and the stabilising carriage, by corresponding movement of the stabilising carriage, in such a way that the lifting platform can perform only the desired, in particular vertical, movement relative to the supporting carriage.

2. Storage and retrieval unit according to Claim 1, wherein the connecting structure comprises two parallel bars.

3. Storage and retrieval unit according to Claim 2, wherein the connecting structure is stiffened, by braces connecting the bars, to form a framework.

4. Storage and retrieval unit according to claim 1, wherein the effective length of the connecting structure can be shortened.

5. Storage and retrieval unit according to Claim 4, further comprising at least one swivel arm, which is swivellably connected to one end of the connecting structure and is articulated on the stabilising carriage and is lockable to it in at least one angular position.

6. Storage and retrieval unit according to Claim 5, wherein the at least one swivel arm, which is swivellably connected to the other end of the connecting structure, is

articulated on the lifting platform and is lockable to it in at least one angular position.

5        7.    Storage and retrieval unit according to Claim 4,  
wherein the connecting structure has elements which are  
telescopable with respect to one another and lockable in at  
least one relative position with respect to one another.

10       8.    Storage and retrieval unit according to claim 1,  
wherein the lifting platform is lockable in its uppermost  
position to the supporting carriage.